

ABSTRACT OF THE DISCLOSURE

A method for synchronizing data between a graphical client and a stateless server.

Descriptions of one or more root object nodes of a scene is downloaded from the server to the graphical client, wherein the descriptions may include references to other object nodes in the form of unique persistent identifiers for the referenced object nodes with their associated bounding volumes. The bounding volumes for the object nodes are intersected with a view frustum in the graphical client to determine a set of visible and undefined object nodes.

Descriptions of the object nodes in the set of visible and undefined object nodes are then downloaded from the server to the graphical client, wherein the descriptions include unique

persistent identifiers for the object nodes with their associated bounding volumes. A determination is made whether the downloaded object nodes reference other object nodes, and if so, the steps are repeated for the other object nodes. Moreover, these steps are repeated until the set of visible and undefined object nodes is empty. At that point, the scene can be rendered by the graphical client. However, the steps are repeated when a user-controlled camera changes the scene in the graphical client.

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